

Application No. 10/667,268

Remarks

Applicants thank the Examiner for his careful consideration of the application.

Interview Summary

The Examiner granted Applicants' representative an interview on May 16, 2005. Claims 1 and 14 were discussed. No conclusions were reached. With respect to claim 1, the Examiner asked for more explanation of Applicants' arguments in writing. With respect to claim 14, the Examiner admitted that the Lee reference failed to disclose a sleeve transmitting a force, but that he wanted Applicant's arguments in writing. The Examiner stated he would consider a 116 amendment containing the arguments Applicants' representative was making. Applicants hope that the amendments and arguments below further clarify the distinctions between the rejected claims and cited prior art.

Claim Rejections - 35 USC § 102

Claims 1, 3, 5-7, 14-15 and 17 are rejected under 35 USC 102(b) as being anticipated by Lee (U.S. Patent 6,185,394). These rejections are respectfully traversed.

In claim 1, Applicants recite a method for extending the lifetime of a photoreceptor belt, wherein a spring-loaded mechanism supplies a force to a tensioning member that tensions the belt when in its operational position inside of a printing device, comprising reducing the tension in the belt by substantially completely removing the force supplied by the spring-loaded mechanism from the tensioning member when the printing device enters an idle state.

Claim 1 should be allowed as the Examiner has not established that Lee anticipates claim 1. To establish anticipation, the prior art reference must include each and every element of the claim. The Examiner has not shown where Lee discloses substantially completely removing a spring-loaded force from a tensioning member when a device enters an idle state. This allows the tensioning member to hang freely, such that the only active force upon it is gravity. Figure 5 of Lee and its accompanying description apparently disclose rocking members that engage springs connected to an auxiliary frame that is in turn

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connected to a shaft of a tension roller. When the mode is switched from a normal print mode to a loosened tension mode, the rocking members apparently lift the springs, thereby lifting the auxiliary frame, which lifts the tension roller. However, this would not remove the force from the springs. Therefore, claim 1 should be allowed over Lee.

The Examiner argues that the device shown in Figures 4 and 5 of Lee show a device that completely removes the force of the spring mechanism from the tensioning member, but Applicant cannot see where this is disclosed. Tension appears to be removed completely from the belt, but not the tensioning member. Lee discloses removing pressure from the spring so that a tension roller no longer tensions a photoreceptor belt. However, the Examiner still has not shown where removing the force supplied by a spring-loaded mechanism from a tensioning member is shown in Lee. Therefore, claim 1 should be allowed over Lee.

Claims 3 and 5-7 should be allowed if claim 1 is allowed as claims 3 and 5-7 depend from claim 1.

In claim 14, Applicants recite an endless belt tensioning apparatus. The belt is wrapped around a support apparatus including at least one support for the belt, a tensioning member, and a biasing means acting on the tensioning member. The tension control apparatus includes a frame connected to the support apparatus, a cam connected to the frame, and a first lever arm having first and second ends. The biasing means includes a spring-loaded mechanism for providing a biasing force and a sleeve for transmitting the biasing force to the tensioning member. The first lever arm is pivotally connected to the frame at a pivot point between the first and second ends of the first lever arm. The first end of the first lever arm is positioned such that when the cam is rotated, the cam causes the first lever arm to pivot about the pivot point such that the second end of the first lever arm engages the sleeve of the biasing means such that the biasing force is no longer transmitted to the tensioning member.

Claim 14 should be allowed as the Examiner has not established that Lee anticipates claim 14. To establish anticipation, the prior art reference must include each and every element of the claim. The Examiner has not shown where Lee discloses a tensioning

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member and a biasing means acting on the tensioning member, wherein the biasing means includes a spring-loaded mechanism for providing a biasing force and a sleeve for transmitting the biasing force to the tensioning member. Further, the Examiner has not shown where Lee discloses the first lever arm engaging the first sleeve of the biasing means such that the biasing force from the first spring-loaded mechanism is no longer transmitted to the tensioning member. The Examiner asserts that Lee discloses a "sleeve" as illustrated by either screw part 331 or nut 341. However, these components are just that - a nut and a screw part. Neither of these functions as a sleeve connected to a spring-loaded mechanism. They are not the same functionally either. The nut and screw part rigidly connect the spring-loaded force with the tension roller in Lee. The sleeve in Applicants' description is used to moderate the force provided by a spring-loaded mechanism to the tensioning member. The Examiner has not shown how the screw part and nut act like a sleeve or even perform the same function as the sleeve in Applicants' invention. Nor has the Examiner shown where Lee discloses a lever arm engaging either 331 or 341 in Lee to remove the force of the spring in Lee from the tension roller in Lee. Therefore, claim 14 should be allowed over Lee.

Claims 15 and 17 should be allowed if claim 14 is allowed as claims 15 and 17 depend from claim 14.

Claim Rejections - 35 USC § 103

Claim 2 is rejected under 35 USC § 103(a) as being unpatentable over Lee in view of Rosati (U.S. Patent No. 4,416,532). This rejection is respectfully traversed.

Claim 2 should be allowed as the Examiner has failed to establish a prima facie case of obviousness. In order to sustain an obviousness rejection under 35 U.S.C. 103(a), the Examiner must show that a combination of the cited references teach or suggest all the limitations of the claim being rejected. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner has failed to show that the combination of references teaches or suggests all the limitations of claim 2. Specifically, the Examiner has not shown substantially completely removing a spring-loaded force from a tensioning member when a device enters an idle state. Claim 2 includes all the limitations of claim 1 and further adds that the belt is

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detensioned manually. As stated in Applicants' response to the rejection of claim 1 under 35 USC § 102(b), the Examiner has not shown where Lee discloses removing a spring-loaded force from a tensioning member when a device enters an idle state. The Examiner combines Rosati with Lee because Rosati apparently discloses a manually adjusted lever for detensioning a belt. However, the Examiner has pointed to no part of Rosati that makes up for the deficiencies in Lee. Therefore, claim 2 should be allowed.

Claim 4 is rejected under 35 USC § 103(a) as being unpatentable over Lee in view of Yu et al (U.S. Patent No. 6,101,353). This rejection is respectfully traversed.

Claim 4 should be allowed as the Examiner has failed to establish a prima facie case of obviousness. In order to sustain an obviousness rejection under 35 U.S.C. 103(a), the Examiner must show that a combination of the cited references teach or suggest all the limitations of the claim being rejected. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner has failed to show that the combination of references teaches or suggests all the limitations of claim 4. Specifically, the Examiner has not shown substantially completely removing a spring-loaded force from a tensioning member when a device enters an idle state. Claim 4 includes all the limitations of claim 1 and further includes automatic detensioning and determining that the printing device is in an idle state a fixed amount of time after the last print job. As stated in Applicants' response to the rejection of claim 1 under 35 USC § 102(b), the Examiner has not shown where Lee discloses removing a spring-loaded force from a tensioning member when a device enters an idle state. The Examiner combines Yu with Lee to reject the additional elements of claims 3 and 4. However, the Examiner has pointed to no part of Yu that makes up for the deficiencies in Lee. Therefore, claim 4 should be allowed.

Conclusion

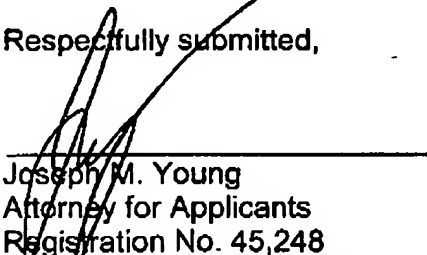
No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation attorney hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025. This also

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constitutes a request for any needed extension of time and authorization to charge all fees therefor to Xerox Corporation Deposit Account No. 24-0025.

A telephone interview is respectfully requested at the number listed below prior to any further Office Action, i.e., if the Examiner has any remaining questions or issues to address after this paper. The undersigned will be happy to discuss any further Examiner-proposed amendments as may be appropriate.

Respectfully submitted,



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